Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **UTU-76490**

6. If Indian, Allottee or Tribe Name: **N/A**

1a. Type of Work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.: **N/A**

b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: **Federal 22-6-10-19**

2. Name of Operator: **Pannonian Energy, Inc.**

9. API Well No.: 43-047-34198

3A. Address: **14 Inverness Dr. E., Englewood, CO 80112**

3b. Phone No. *(include area code)*: **(303) 483-0044**

10. Field and Pool, or Exploratory: **Riverbend**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface: **1845' FNL & 2177' FWL (SENW)** 4425443 N 600379 E
At proposed prod. Zone

11. Sec., T., R., M., or Blk, and Survey or Area: **Section 6-T10S-R19E**

14. Distance in miles and direction from nearest town or post office*: **Approximately 26.7 miles from Myton, Utah**

12. County or Parish: **Uintah**

13. State: **UT**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any): **1845'**

16. No. of Acres in lease: **1005.02**

17. Spacing Unit dedicated to this well: **40**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: **See Map C**

19. Proposed Depth: **8622'**

20. BLM/BIA Bond No. on file: **Utah BLM Bond No. 4127759**

21. Elevations (Show whether DF, KDB, RT, GL, etc.): **4960' GL**

22. Approximate date work will start*: **Upon Approval**

23. Estimated duration: **18 days**

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized office.

25. Signature: Howard O Sharpe — Name *(Printed/Typed)*: **Howard Sharpe** — Date: 7-5-01

Title: **Vice President**

Approved by *(Signature)*: Bradley G. Hill — Name *(Printed/Typed)*: **BRADLEY G. HILL** — Date: 08-06-01

Title — Office: **RECLAMATION SPECIALIST III**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

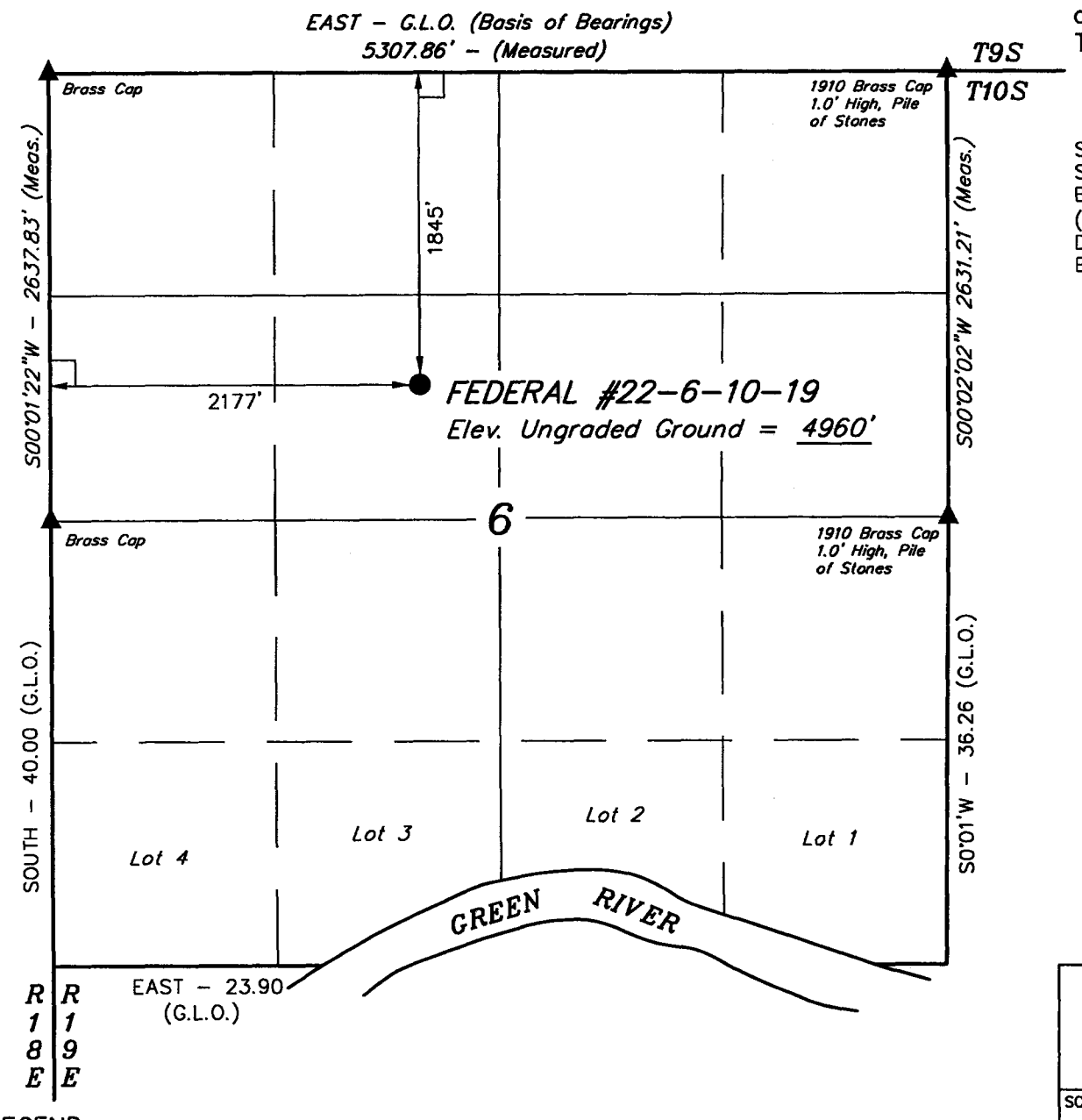
Title 18 U.S.C. Section 1001and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

Federal Approval of this Action is Necessary

RECEIVED
JUL 11 2001
DIVISION OF
OIL, GAS AND MINING

# T10S, R19E, S.L.B.&M.

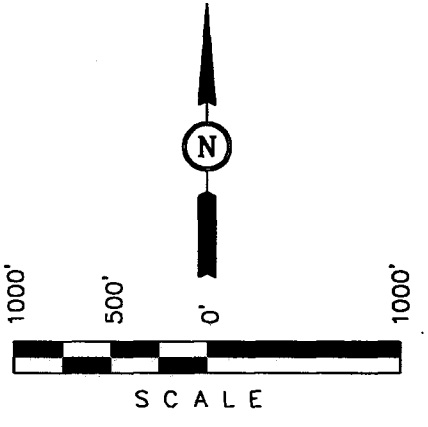



## PANNONIAN ENERGY, INC.

Well location, FEDERAL #22-6-10-19, located as shown in the SE 1/4 NW 1/4 of Section 6, T10S, R19E, S.L.B.&M. Uintah County, Utah.

### BASIS OF ELEVATION

SPOT ELEVATION LOCATED AT THE NORTHWEST CORNER OF SECTION 6, T10S, R19E, S.L.B.&M. TAKEN FROM THE MOON BOTTOM QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5011 FEET.




### CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

LATITUDE = 39°58'30"
LONGITUDE = 109°49'26"


UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017


| SCALE | DATE SURVEYED: | DATE DRAWN: |
|---|---|---|
| 1" = 1000' | 5-31-01 | 6-7-01 |
| PARTY: D.A. P.M. D.COX | REFERENCES: G.L.O. PLAT | |
| WEATHER: WARM | FILE: PANNONIAN ENERGY, INC. | |

**PANNONIAN ENERGY, INC.**

# *Federal 22-6-10-19*
# *SENW, Section 6-T10S-R19E*
# *Uintah County, Utah*
# *Lease No. UTU-76490*

## *DRILLING PLAN*

### 1. *ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS & ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:*

| Formation | Depth (ft) | Hydrocarbon/Water Bearing Zones |
|---|---|---|
| Uintah | Surface | |
| Green River | 1422' | Gas/Oil |
| Wasatch | 4972' | Gas |
| TD | 8622' | |

All usable (<10,000 ppm TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. All significant oil and gas shows will be tested to determine commercial potential. This information shall be reported to the Vernal BLM Office.

### 2. *PRESSURE CONTROL EQUIPMENT:*

All well control equipment shall be in accordance with Onshore Order #2 for 5M systems.

The minimum specifications for pressure control equipment that will be provided are included on the attached schematic diagram showing size, pressure ratings, testing procedures, and testing frequency.

5000# BOP With 4-1/2" Pipe Rams
5000# BOP With Blind Rams
5000# Annular

Auxiliary equipment to be used:

- Upper kelly cocks with handle available.

The manifold includes appropriate valves and adjustable chokes. The kill line will have one check valve. Ram type preventers will be pressure tested to full working pressure (utilizing a test plug) at:

- initial installation;
- whenever any seal subject to test pressure is broken;
- following related repairs;
- at 30 day intervals

The annular preventer will be pressure tested to 50 percent of the rated working pressure. All pressure tests shall be maintained at least ten minutes or until provisions of test are met, whichever is longer.

Annular preventers shall be functionally operated at least weekly.

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill will be conducted weekly for each drilling crew.

All tests and drills will be recorded in the drilling log.

The accumulator will have sufficient capacity to open the HCR valve, close all rams plus the annular preventer, and retain 200 psi above pre-charge pressure without the use of closing unit pumps. The system will have two independent power sources to close the preventers in accordance with 5M system requirements outlined in Onshore Order #2.

Remote controls shall be readily accessible to the driller. Master controls shall be at the accumulator.

## 3. *CASING & CEMENTING PROGRAM:*

A. The proposed casing program will be as follows:

| Depth | Hole Size | Size | Grade | Weight | Thread | Condition |
|---|---|---|---|---|---|---|
| 0-400' | 12-1/4" | 8-5/8" | K-55 | 24# | LT&C | New |
| 0-TD | 7-7/8" | 4-1/2" | N-80 | 11.6# | LT&C | New |

The proposed casing and cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. Determination of casing setting depth shall be based on all relevant factors, including: presence/absence of hydrocarbons, fracture gradients, usable water zones, formation pressures, lost circulation zones, other minerals, or other unusual characteristics.

All casing, except conductor casing, shall be new or reconditioned and tested. Used casing shall meet or exceed API standards for new casing.

The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing. If drive pipe is used, it may be left in place if its total length is less than twenty feet below the surface. If the total length of the drive pipe is equal to or greater

than twenty feet, it will be pulled prior to cementing surface casing, or it will be cemented in place.

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc., shall be utilized to help isolate the cement from contamination by the mud being displaced ahead of the cement slurry.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or to 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. If pressure declines more than 10% in 30 minutes, corrective action shall be taken.

The bottom three joints of the surface casing will have one centralizer per joint and one centralizer every fourth joint thereafter.

Casing design subject to revision based on geologic conditions encountered.

B. The proposed cementing program will be as follows:

**Surface String:** Cement will be circulated to surface. Estimated volume (100% over theoretical value):

290 sx Premium Plus, 2% $CaCl_2$ w/0.25 #/sx Flocele @ 15.6 ppg, 1.19 $ft^3$/sx.

**Production String:** Estimated volume (gauge hole + 15%):

***Lead:*** 450 sx Hifill @ 11.0 ppg, 3.84 $ft^3$/sx.
***Tail:*** 1246 sx 50/50 POZ @ 14.35 ppg, 1.26 $ft^3$/sx.

Actual volumes will be calculated and adjusted with caliper log prior to cementing. Ten percent excess will be pumped.

For surface casing, waiting on cement time will be adequate to achieve 500 psi compressive strength at the casing shoe prior to drilling out.

Anticipated cement tops will be reported as to depth, not the expected number of sacks of cement to be used. The Vernal District BLM Office will be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

After cementing the surface pipe and/or any intermediate strings, but before commencing any test, the casing string shall stand cemented until the cement has reached a compressive strength of at least 500 psi at the shoe. WOC time shall be recorded in the Driller's Log.

## 4. *DRILLING FLUIDS PROGRAM:*

| Interval | Type | Weight (ppg) | Viscosity | pH | Water Loss | Remarks |
|---|---|---|---|---|---|---|
| 0-400' | Spud | 8.4 -9.0 | 30-45+ | 8.0 | NC | Gel & lime as required. |
| 400'-Top of Wasatch | Wtr/gel | 8.4-8.8 | 27-35 | 8.5-9.0 | NC | Min. Wt. |
| Top of Wasatch-TD | KCL Mud | 8.5-8.8* | 35-45 | 9.0-11.0 | 10-15cc @ TD | * Min Wt. to control formation pressure. |

NC = no control

Sufficient quantities of mud material will be maintained on site or be readily accessible for the purpose of assuring well control. SPR will be recorded on daily drilling report after mudding up. Visual mud monitoring will be conducted during operations.

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

## 5. *EVALUATION PROGRAM:*

***Logs:*** DLLT/GR: TD to base surface casing
SDL/DSN/GR/CAL: TD to 300' above Green River
MRIL: TD to 100' above Wasatch
(at operators discretion)

***Cores:*** None anticipated.

***DST's:*** None anticipated.

When cement has not been circulated to surface, the cement top will be determined by either a temperature survey or cement bond log. Should a temperature survey fail to locate the cement top, a cement bond log will be run. A field copy will be submitted to the Vernal BLM office.

Drill stem tests, if they are run, will adhere to the following requirements:

> Initial opening of the drill stem test tools shall be restricted to daylight hours unless specific approval to start during other hours is obtained from the Authorized Officer. However, DST's may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vapor-proof for safe operations). Packers can

be released, but tripping shall not begin before daylight, unless prior approval is obtained from the Authorized Officer. Closed chamber DST's may be performed day or night.

Some means of reverse circulation shall be provided in case of flow to the surface showing evidence of hydrocarbons.

Separation equipment required for the anticipated recovery shall be properly installed before a test starts.

All engines within 100 feet of the wellbore that are required to be operational during the test shall have spark arresters or water-cooled exhausts.

## 6. *ABNORMAL CONDITIONS:*

No anticipated abnormal pressures or temperatures are expected to be encountered. No hydrogen sulfide is expected.

Anticipated bottom-hole pressure is 3733 psi.

## 7. *OTHER INFORMATION:*

The anticipated starting date and duration of the operation will be as follows:

| | |
|---|---|
| Starting Date: | Upon Approval |
| Duration: | 11 Drilling Days & 7 Completion Days |

If the well is completed as a dry hole or as a producer, Well Completion or Recompletion Report and Log (Form 3160-4) will be submitted within 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3160. Copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, daily drilling reports, daily completion reports, and all other surveys or data obtained and compiled during the drilling, completion, and/or workover operations, will be submitted directly to the Authorized Officer or filed with Form 3160-4.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

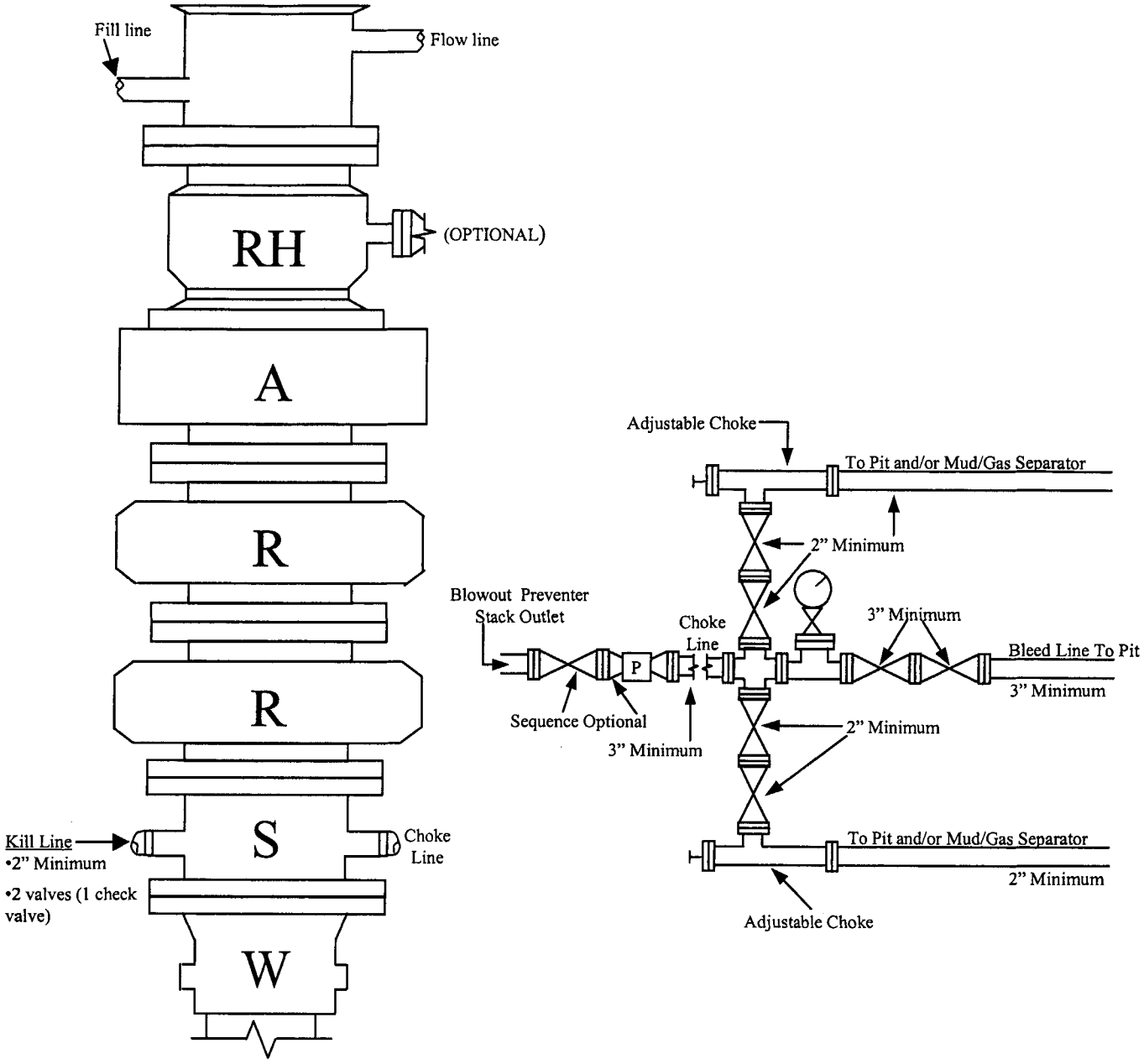
Deviations from the proposed drilling and/or workover program will be approved by the Authorized Officer. Safe drilling and operating practices will be observed. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders No. 1 and No. 2, and the approved Plan of Operations. The Operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

## DOUBLE RAM TYPE PREVENTERS WITH AN OPTIONAL ROTATING HEAD

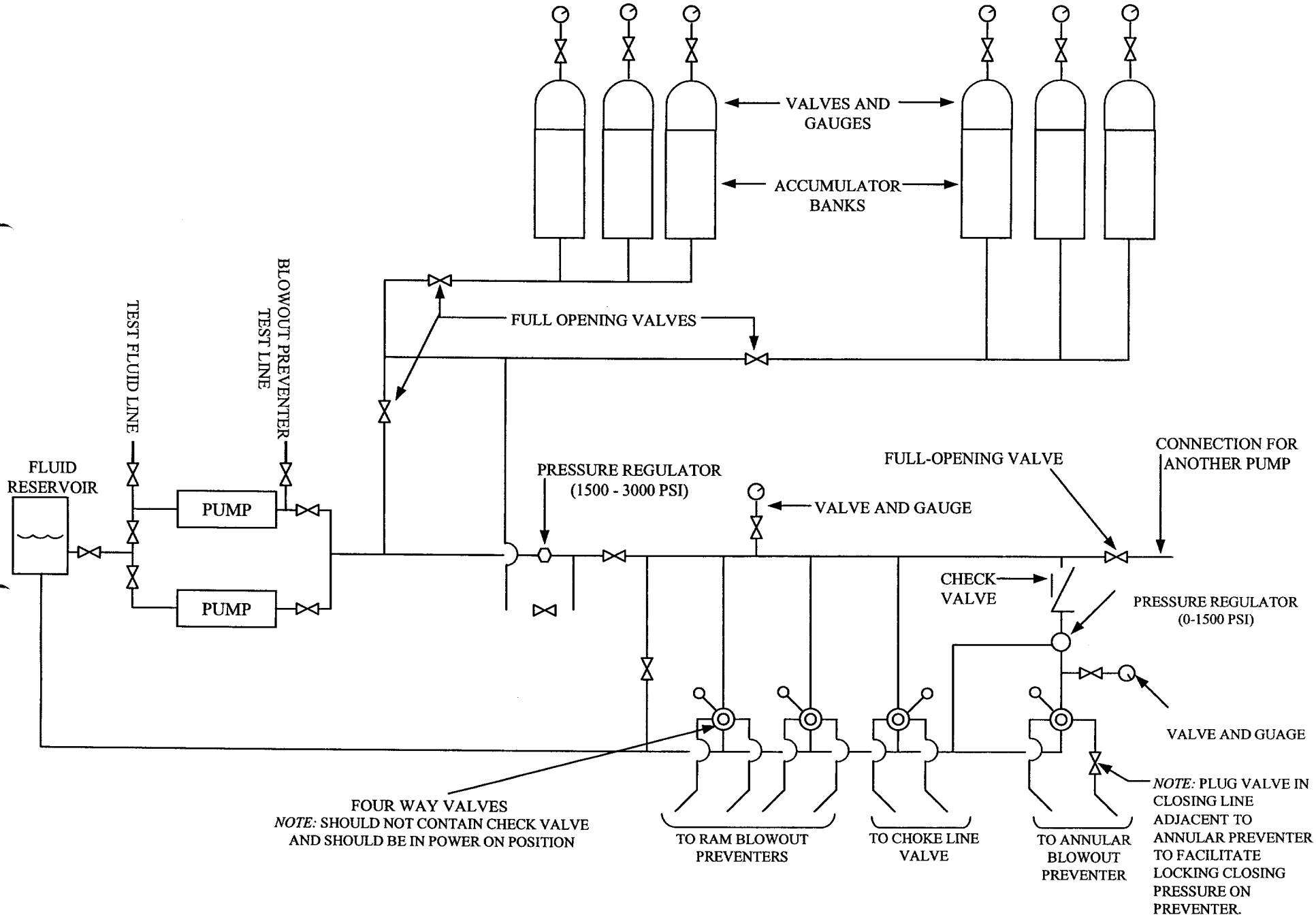
**5000 psi system**




* Note: Kill line shall be 2" minimum diameter and have two valves, one of which shall be a check valve. Both valves: 2" minimum.

| | |
|---|---|
| Minimum BOP Stack | 5000 psi Working Pressure |
| One Pipe Ram | 5000 psi Working Pressure |
| One Blind Ram | 5000 psi Working Pressure |
| One Annular | 5000 psi Working Pressure |
| Well Head | 5000 psi Working Pressure |
| Manifold | 5000 psi Working Pressure |

# TYPICAL BLOWOUT PREVENTER CLOSING UNIT ARRANGEMENT



# PANNONIAN ENERGY, INC.

## *Federal 22-6-10-19*
## *SENW, Section 6-T10S-R19E*
## *Uintah County, Utah*
## *Lease No. UTU-76490*

## *SURFACE USE PLAN*

An onsite inspection for the subject well was conducted on June 26, 2001. Weather conditions at the time of the onsite inspection were overcast and windy. In attendance were the following individuals:

Stan Olmstead – Bureau of Land Management
Robert Kay – Uintah Engineering & Land Surveying
Robin Dean – Pannonian Energy, Inc.
Kelly Olds – Halliburton Integrated Solutions
Sheila Bremer – Halliburton Integrated Solutions

### *1. EXISTING ROADS:*

Refer to Topo Maps A and B for location of existing access roads.

See Topo Map A for directions to the proposed location from Myton, Utah.

The existing roads will be maintained and kept in good repair.

### *2. ACCESS ROADS TO BE CONSTRUCTED:*

Approximately 1.7 miles of new road will be required to access the proposed location.

The proposed access road was centerline staked.

The new road will be completed as a single lane 18-foot subgrade road with natural low water crossings (see Topo Map B).

Maximum grade will be less than eight percent.

There are one major cut or fill and no turnouts or bridges anticipated along the proposed access route.

No gates, cattleguards, fence cuts, or modifications to existing facilities will be required on or along the proposed access route.

The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.

Construction activity will not be conducted using frozen or saturated soils material or during periods when watershed damage is likely to occur.

The access road and associated drainage structures will be constructed and maintained in accordance with roading guidelines contained in the joint BLM/USFS publication: *Surface Operating Standards for Oil and Gas Exploration and Development*, Third Edition, and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction. During the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and drainage ditches and culverts will be kept clear and free flowing.

If the access road is dry during construction, drilling, and completion activities, water will be applied to the access road to help facilitate road compaction (during construction) and to minimize soil loss as a result of wind erosion.

## 3. *Location of Existing Wells Within a One-mile Radius:*

See Topo Map C.

Water wells – 0
Abandoned wells – 0
Temporarily Abandoned wells – 0
Disposal wells – 0
Drilling/Proposed wells – 0
Producing wells – 1
Shut-in wells – 0
Injection wells – 0
Monitoring wells - 0

## 4. *Location of Existing and/or Proposed Production Facilities:*

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope.

Containment berms will be constructed completely around production facilities designed to hold fluids (i.e., production tanks, produced water tanks, and/or heater/treater). The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 110 percent of the capacity of the largest tank, and be independent of the back cut.

All loading lines will be placed inside the berm surrounding the tank battery.

All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted Carlsbad Canyon (Munsell standard color 2.5y 6/2).

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flow line will be buried or anchored down from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be

conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The Authorized Officer will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal Field Office. All meter measurement facilities will conform with Onshore Oil and Gas Order No. 4 for liquid hydrocarbons and Onshore Oil and Gas Order No. 5 for natural gas measurement.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the Authorized Officer.

### 5. *Location and Type of Water Supply:*

Water for drilling will be obtained from the Dalbo Ouray Water Facility located in Section 32-T4S-R3E, Water Use Claim #43-8496, Application #53617. No water supply well will be drilled.

The water will be transported to location via truck by an approved commercial water hauler over the access roads shown on Topo Maps A and B.

### 6. *Source of Construction Materials:*

Surface and subsoil materials in the immediate area will be utilized. Any construction materials that may be required for surfacing of the drill pad and access road will be obtained from a contractor having a permitted source of materials within the general area.

The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2-3.

No construction materials will be removed from Federal lands without prior approval.

### 7. *Methods of Handling Waste Disposal:*

Cuttings and drilling fluids will be contained in the reserve pit.

Tanks will be used for storage of produced fluids during testing. Fracture stimulation fluids will be flowed back into the reserve pit for evaporation.

Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

All garbage and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage. Upon completion of operations, or as needed, the accumulated trash will be transported to a state approved waste disposal site. No trash will be placed in the reserve pit.

Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location. Any open pits will be fenced

during drilling operations and said fencing will be maintained until such time as the pits have been backfilled.

After first production, produced wastewater will be confined to the approved pit or storage tank for a period not to exceed 90 days. During the 90 day period, in accordance with Onshore Order No. 7, an application for approval of a permanent disposal method and location will be submitted for the Authorized Officer's approval.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

Operator maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be found at the site may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/ stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and EHS and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

## 8. *ANCILLARY FACILITIES:*

None anticipated.

## 9. *WELL SITE LAYOUT:*

A. General Information:

See the attached *Location Layout* and *Typical Cross Sections* diagrams showing the proposed drill pad cross sections and cut and fills in relation to topographic features as well as access onto the pad and soil stockpiles.

See the attached *Typical Rig Layout* diagram showing the location of the reserve pit, flare pit, living facilities, and rig orientation with respect to the pad and other facilities.

If necessary, in order to divert surface runoff, a drainage ditch will be constructed around the upslope side of the well site.

All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad, and spoil and topsoil storage areas).

The fill section of the pad that supports the drilling rig and any other heavy equipment will be compacted.

B. Reserve Pit:

The reserve pit will be constructed in a way that minimizes the accumulation of surface precipitation runoff into the pit. This may be accomplished by appropriate placement of subsoil/topsoil storage areas and/or construction of berms or ditches.

The reserve pit will be fenced on three sides during drilling operations and the fourth side will be fenced after the drilling rig moves off the location. Thirty-nine (39) inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire will not be used if pipe or some type of reinforcement rod is attached to the top of the entire fence. The net wire will be no more than two inches above the ground. The barbed wire will be three inches over the net wire. Total height of the fence will be at least 42 inches. Corner posts will be cemented and/or braced in such a manner to keep the fence tight at all times. Standard steel, wood, or pipe posts will be used between the corner braces. Maximum distance between any 2 fence posts will not be greater than 16 feet. All wire will be stretched using a stretching device before it is attached to the corner posts.

Siphons, catchments, and/or absorbent pads will be installed to keep hydrocarbons produced by the drilling rig from entering the reserve pit. Hydrocarbons and contaminated pads will be disposed of in accordance with DEQ requirements.

The reserve pit will be backfilled as soon as dry after drilling and completion operations are finished. If natural evaporation of the reserve pit is not feasible, alternative methods of drying, removal of fluids, or other treatment will be developed. If fluids will be disposed of by any method other than evaporation or hauling to a DEQ approved disposal pit, prior approval from the Authorized Officer will be obtained.

If a liner is required, then the reserve pit will be lined with a synthetic liner. The reserve pit bottom and side walls shall be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, or bentonite) that could damage the liner. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place.

***10. PLANS FOR RECLAMATION OF THE SURFACE:***

***Producing Location:***

- Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

- If a synthetic, nylon reinforced, liner is used, the excess liner will be cut off and removed and the remaining liner will be torn and perforated while backfilling the reserve pit. Alternatively, the pit will be pumped dry, the liner folded into the pit, and the pit backfilled.

- Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

- The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion, weather permitting. This will be completed by backfilling and crowning the pit to prevent water from standing.

- Seeding will be performed immediately after the location has been reclaimed and the pit has been backfilled, regardless of the time of year. The Bureau of Land Management will specify a seed mixture. Seed will be broadcast and walked in with a dozer. The topsoil stockpile will be seeded as soon as the location has been constructed with the same recommended seed mix.

***Dry Hole/Abandoned Location:***

- On lands administered by the BLM, abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions may include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and the re-establishment of vegetation as specified.

- All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

***11. SURFACE OWNERSHIP:***

Surface ownership of the proposed location is as follows:

**Well Site & Access Road:** Bureau of Land Management

***12. OTHER INFORMATION:***

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice of Lessees. The operator is fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

The Operator will control noxious weeds along right-of-ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds may be obtained from the BLM or the appropriate County Extension Office. On BLM administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides or other pesticides or possibly hazardous chemicals.

Drilling rigs and/or equipment used during drilling operations on this location will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. If BLM authorization is obtained, such storage is only a temporary measure.

The Operator is responsible for informing all persons in the area who are associated with this project that they may be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. All vehicular traffic, personnel movement, construction, and restoration activities shall be confined to the areas examined, as referenced in the archaeological report, and to the existing roadways and/or evaluated access routes. If historic or archaeological materials are uncovered during construction, the Operator is to immediately stop work that might further disturb such materials and contact the Authorized Officer. Within five working days, the Authorized Officer will inform the Operator as to:

- whether the materials appear eligible for the National Historic Register of Historic Places;
- the mitigation measures the Operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- a time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.
- If the Operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise the Operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that required mitigation has been completed, the Operator will then be allowed to resume construction.

A Class III archeological survey has been conducted by Metcalf Archeological Consultants. No significant cultural resources were found and clearance is recommended. Metcalf Archeological Consultants will submit a copy of this report to the appropriate agencies.

***13. LESSEE OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:***

Mike Decker
Pannonian Energy, Inc.
14 Inverness Drive East
Suite H-236
Englewood, Colorado 80112-5625
(303) 204-3880

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Pannonian Energy, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

7-5-01
Date

Howard A Sharpe
Howard Sharpe, Vice President

# PANNONIAN ENERGY, INC.

## FEDERAL #22-6-10-19

**LOCATED IN UINTAH COUNTY, UTAH**
**SECTION 6, T9S, R19E, S.L.B.&M.**

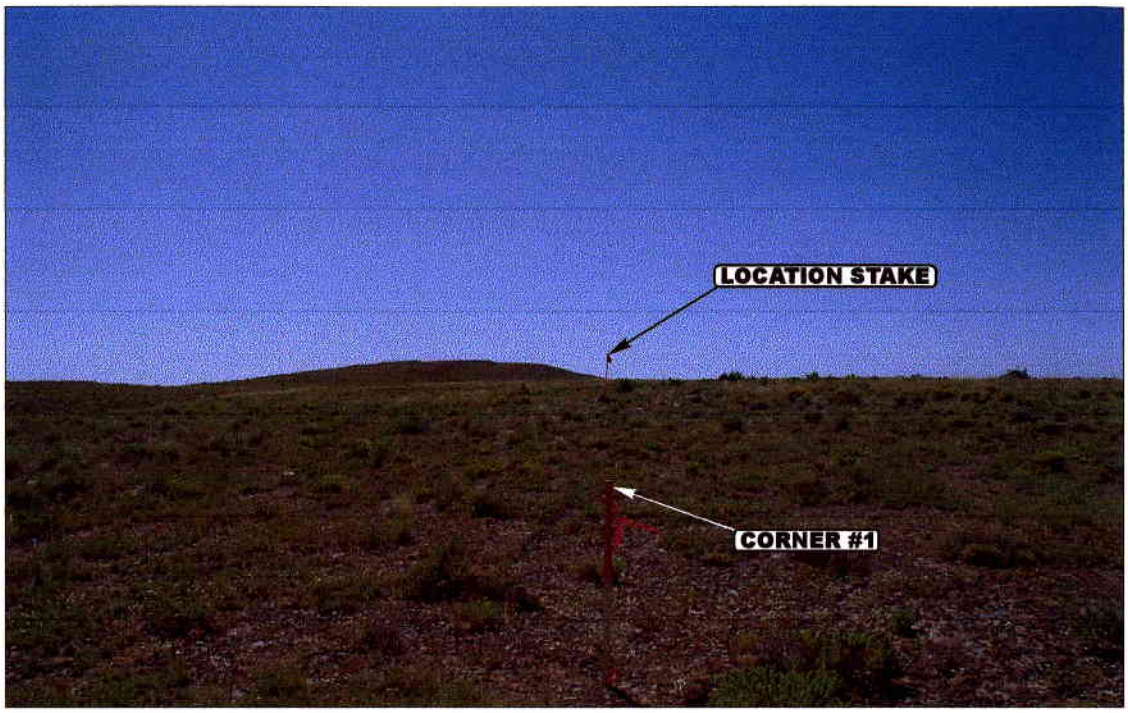
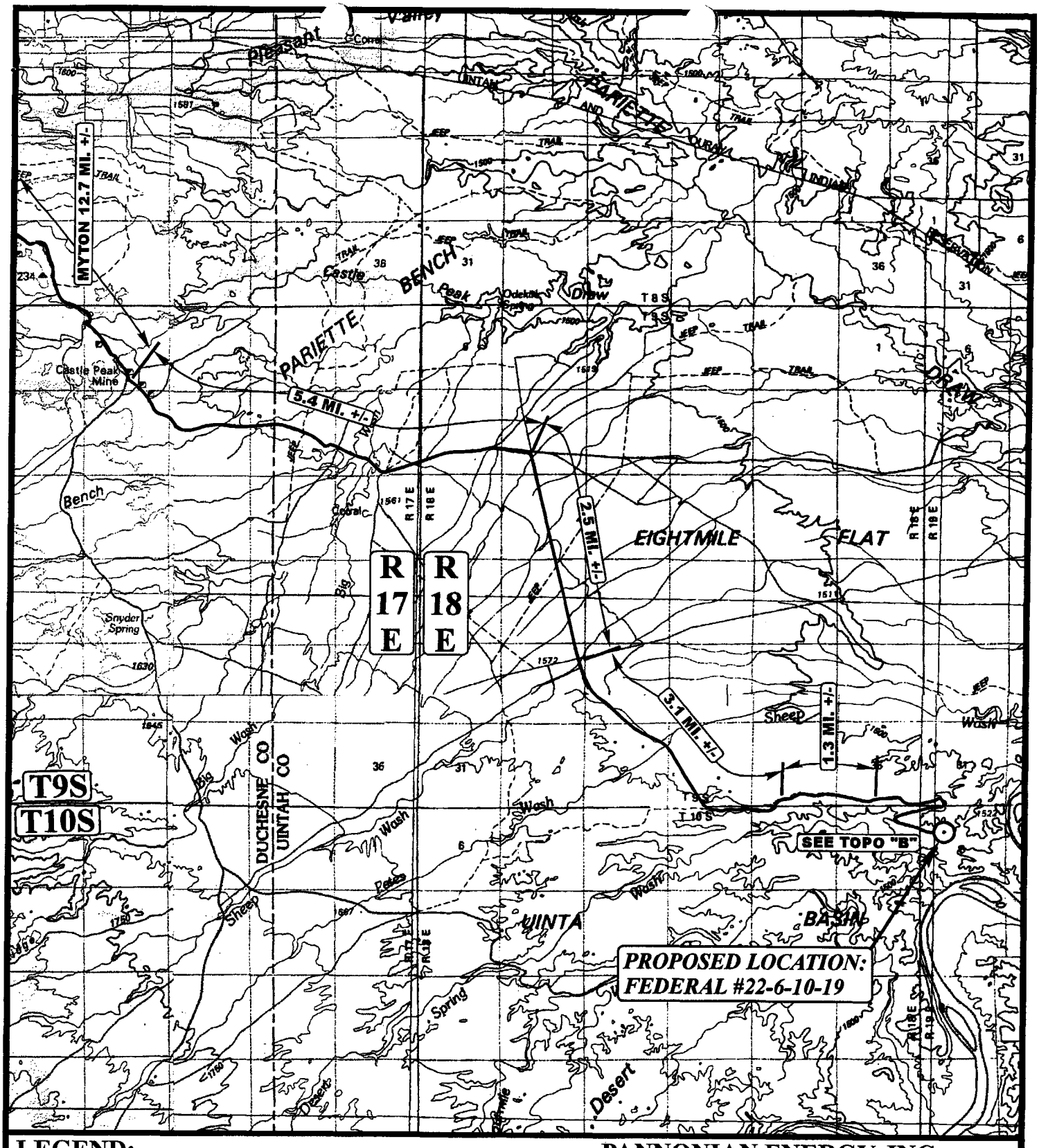



**PHOTO: VIEW FROM CORNER #1 TO LOCATION STAKE** **CAMERA ANGLE: SOUTHEASTERLY**


**PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS** **CAMERA ANGLE: EASTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

| LOCATION PHOTOS | 6 MONTH | 11 DAY | 01 YEAR | PHOTO |
|---|---|---|---|---|
| TAKEN BY: D.A. | DRAWN BY: K.G. | REVISED: 00-00-00 | | |




**LEGEND:**

⊙ PROPOSED LOCATION

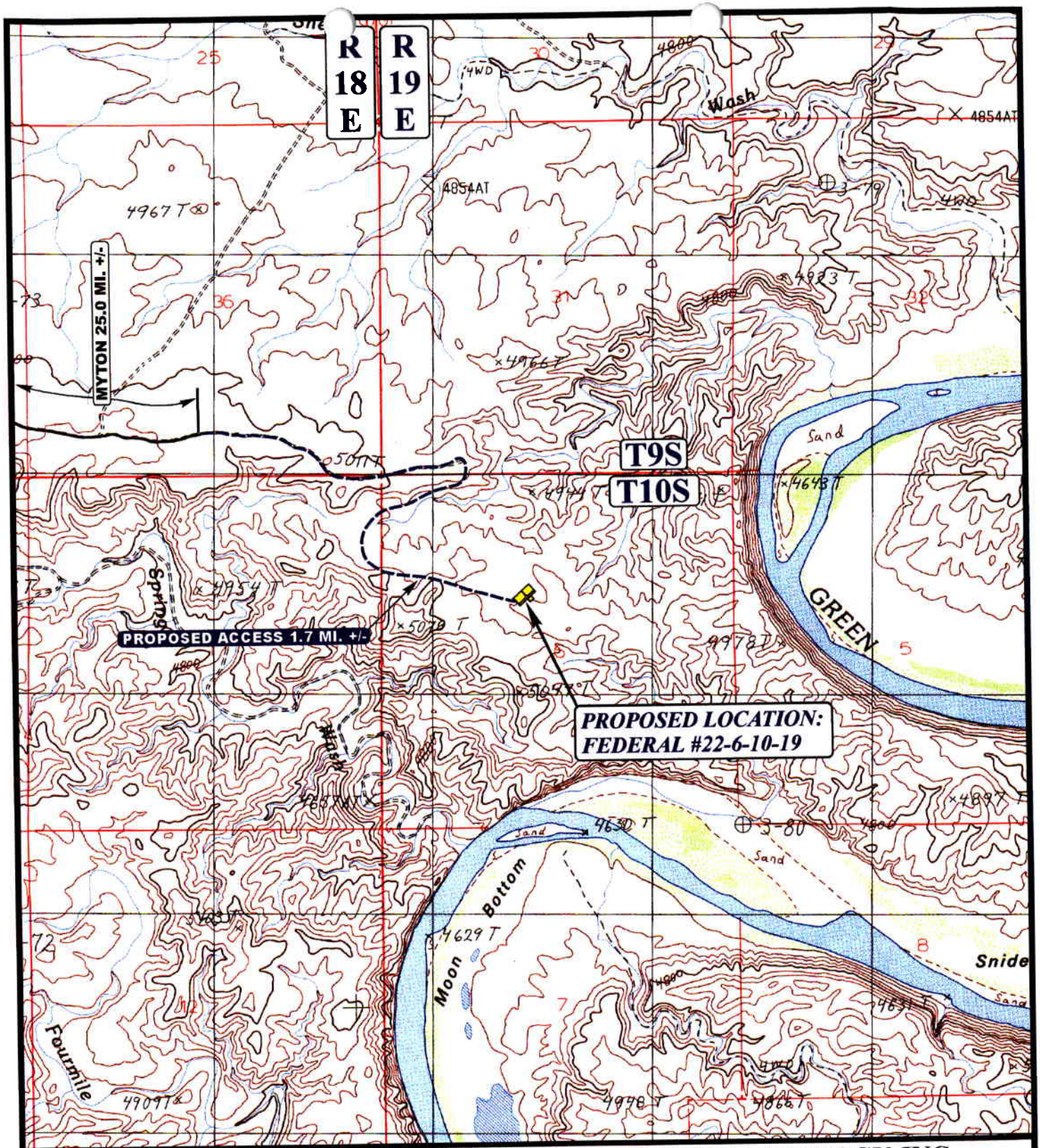
N

**PANNONIAN ENERGY, INC.**

**FEDERAL #22-6-10-19**
**SECTION 6, T10S, R19E, S.L.B.&M.**
**1845' FNL 2177' FWL**


**Uintah Engineering & Land Surveying**
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 6 MONTH | 11 DAY | 01 YEAR | A TOPO |
|---|---|---|---|---|
| SCALE: 1 : 100,000 | DRAWN BY: K.G. | REVISED: 00-00-00 | | |




**LEGEND:**

PROPOSED ACCESS ROAD

EXISTING ROAD

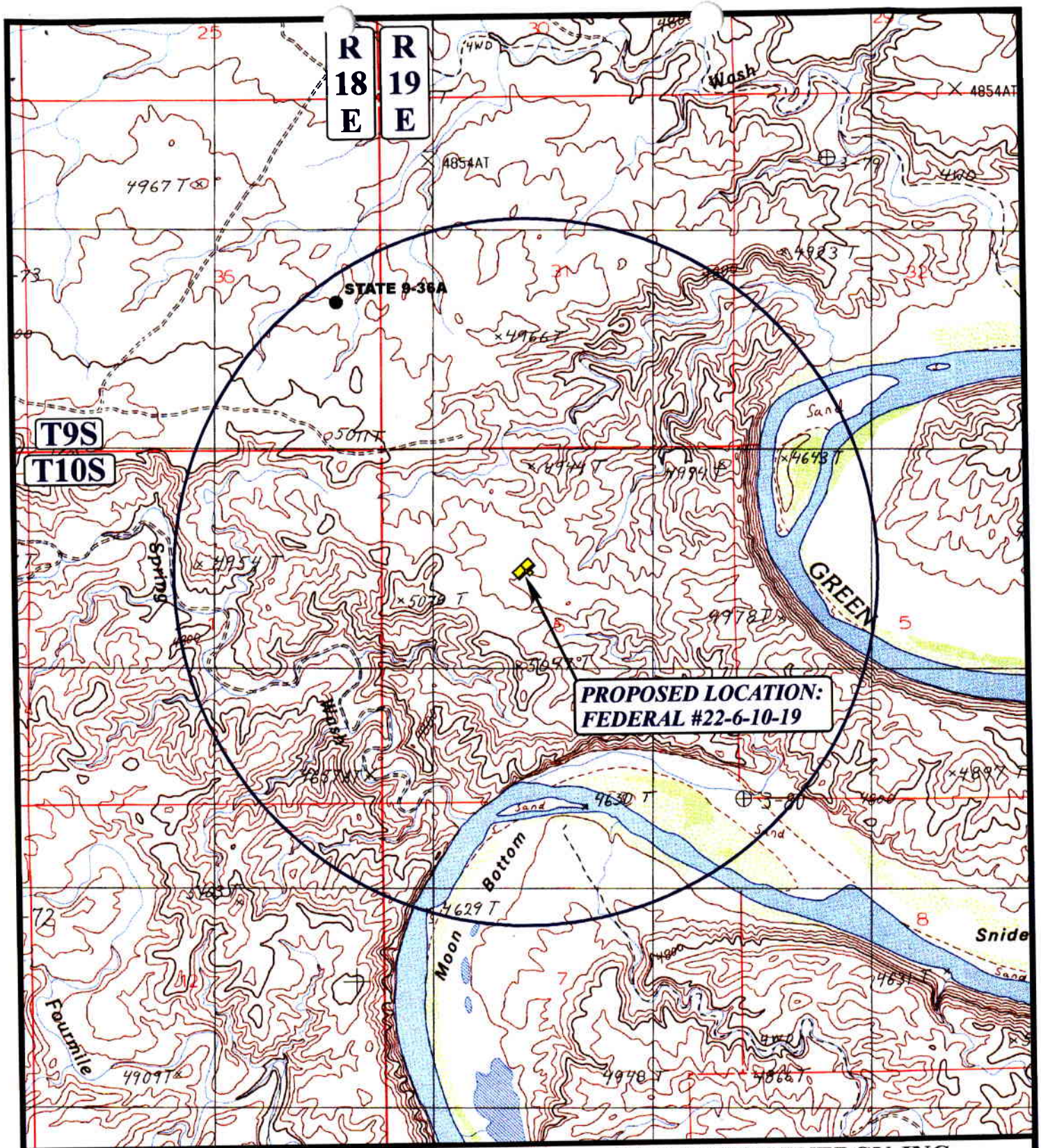
N

**PANNONIAN ENERGY, INC.**

**FEDERAL #22-6-10-19**
**SECTION 6, T10S, R19E, S.L.B.&M.**
**1845' FNL 2177' FWL**


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 6 MONTH | 11 DAY | 01 YEAR | B TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: K.G. | REVISED: 00-00-00 | | |




## LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

**PANNONIAN ENERGY, INC.**

**FEDERAL #22-6-10-19**
**SECTION 6, T10S, R19E, S.L.B.&M.**
**1845' FNL 2177' FWL**

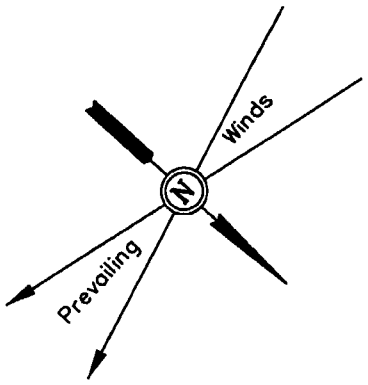

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

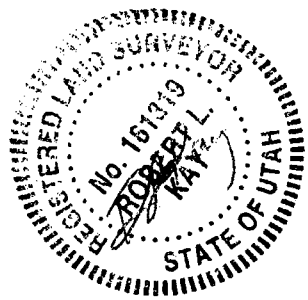

| TOPOGRAPHIC MAP | 6 MONTH | 11 DAY | 01 YEAR | C TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: K.G. | REVISED: 00-00-00 | | |

# PANNONIAN ENERGY, INC.

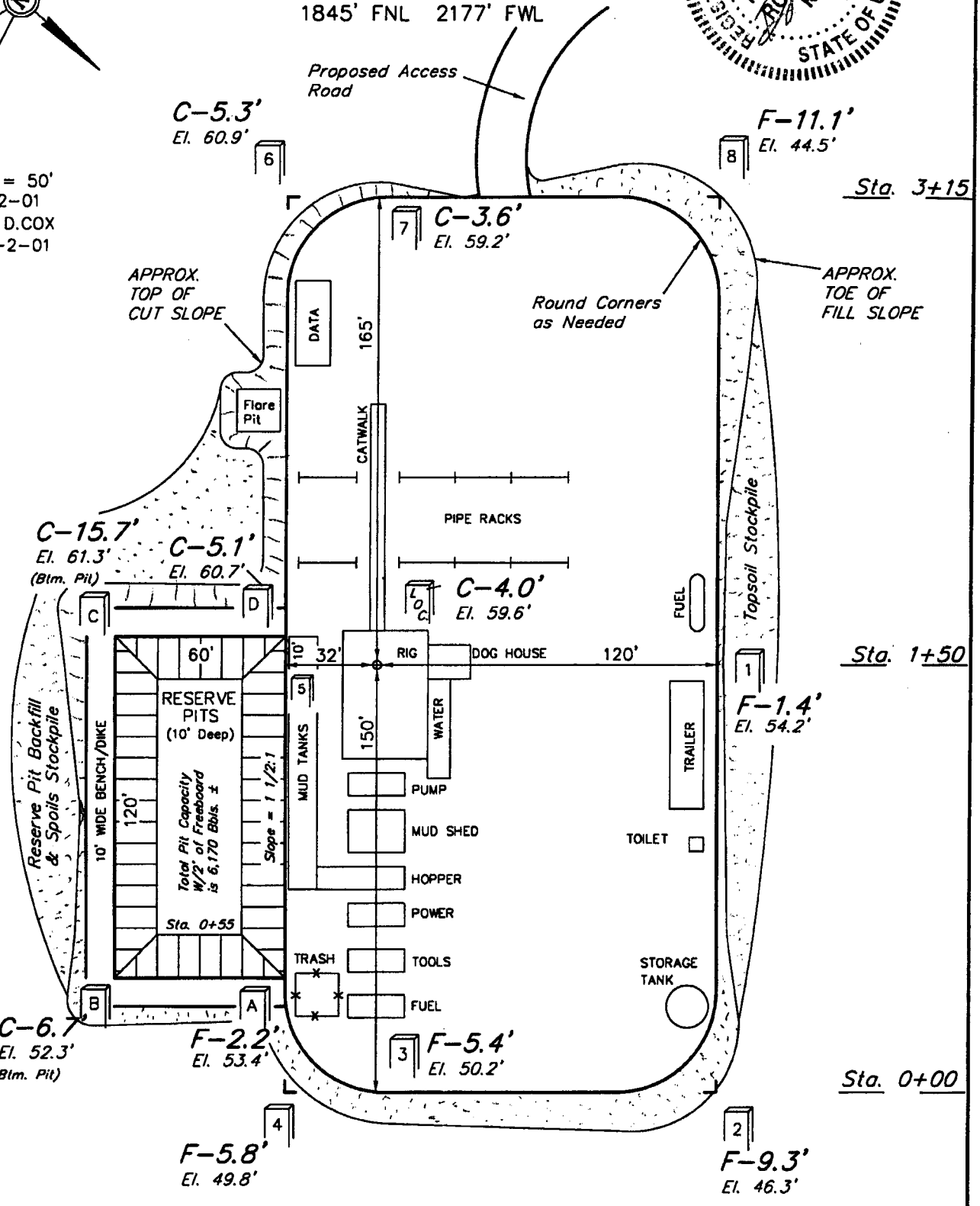
## LOCATION LAYOUT FOR

FEDERAL #22-6-10-19
SECTION 6, T10S, R19E, S.L.B.&M.
1845' FNL 2177' FWL




SCALE: 1" = 50'
DATE: 6-12-01
DRAWN BY: D.COX
Revised: 7-2-01




Elev. Ungraded Ground at Location Stake = 4959.6'
Elev. Graded Ground at Location Stake = 4955.6'


UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

# PANNONIAN ENERGY, INC.

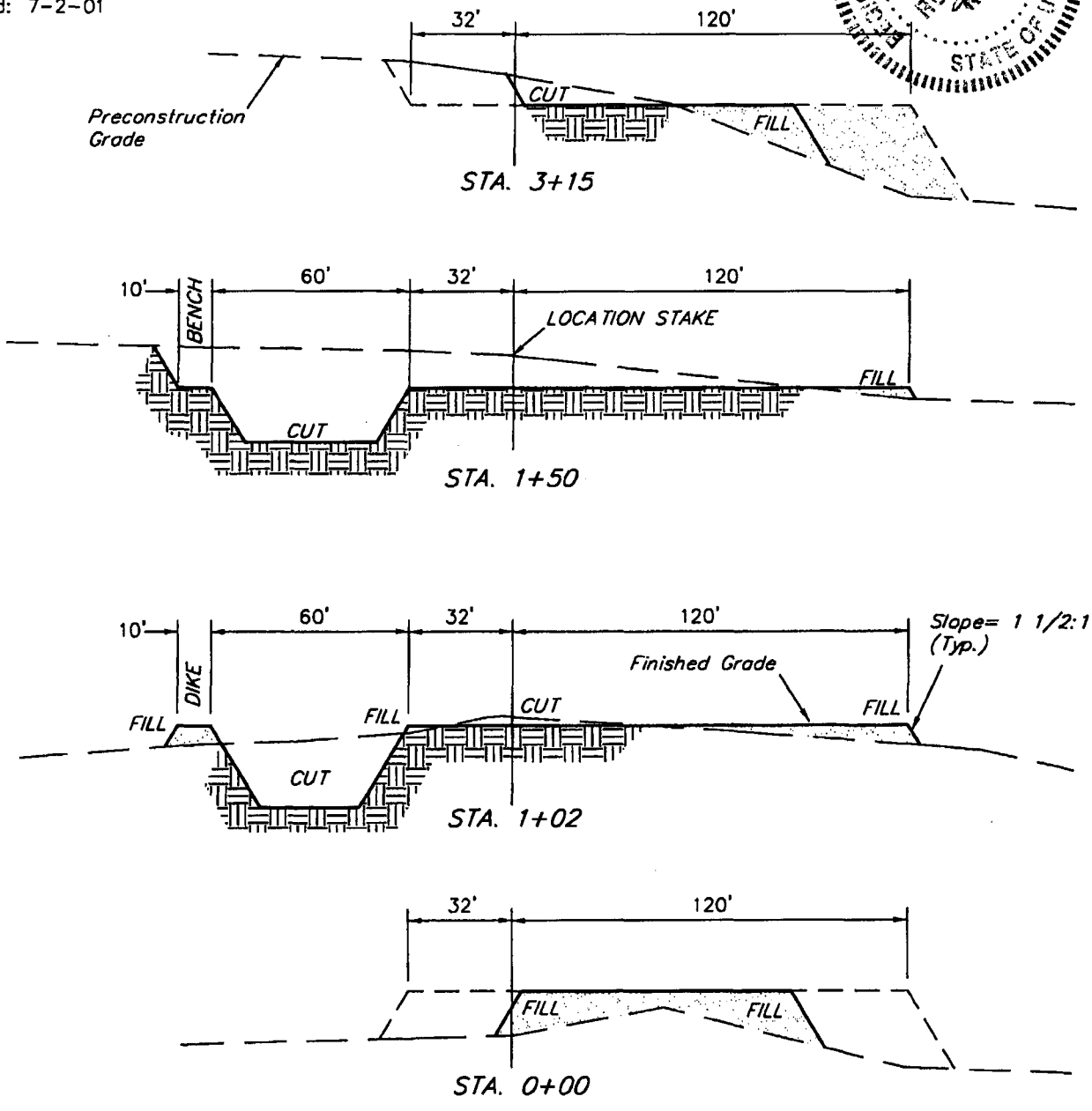
## TYPICAL CROSS SECTION FOR

FEDERAL #22-6-10-19
SECTION 6, T10S, R19E, S.L.B.&M.
1845' FNL 2177' FWL

1" = 20'
X-Section Scale
1" = 50'

DATE: 6-12-01
DRAWN BY: D.COX
Revised: 7-2-01

REGISTERED LAND SURVEYOR No. 161319 STATE OF UTAH




## APPROXIMATE YARDAGES

| | | |
|---|---|---|
| CUT | | |
| (6") Topsoil Stripping | = 1,070 | Cu. Yds. |
| Remaining Location | = 4,100 | Cu. Yds. |
| TOTAL CUT | = 5,170 | CU.YDS. |
| FILL | = 3,050 | CU.YDS. |

| | | |
|---|---|---|
| EXCESS MATERIAL AFTER 5% COMPACTION | = 1,960 | Cu. Yds. |
| Topsoil & Pit Backfill (1/2 Pit Vol.) | = 1,960 | Cu. Yds. |
| EXCESS UNBALANCE (After Rehabilitation) | = 0 | Cu. Yds. |


*UINTAH ENGINEERING & LAND SURVEYING*
*85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017*

# WORKSHEET
# APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 07/11/2001

API NO. ASSIGNED: 43-047-34198

WELL NAME: FED 22-6-10-19

OPERATOR: PANNONIAN ENERGY INC ( N1815 )

CONTACT: HOWARD SHARPE

PHONE NUMBER: 303-483-0044

PROPOSED LOCATION:

SENW 06 100S 190E

SURFACE: 1845 FNL 2177 FWL

BOTTOM: 1845 FNL 2177 FWL

UINTAH

NATURAL BUTTES ( 630 )

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-76490

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: WSTC

INSPECT LOCATN BY: / /

| Tech Review | Initials | Date |
|---|---|---|
| Engineering | | |
| Geology | | |
| Surface | | |

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. 4127759 )

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496 )

N RDCC Review (Y/N)
(Date: )

N/A Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3. Unit

✓ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

___ Drilling Unit
Board Cause No:
Eff Date:
Siting:

___ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1-Fed. Aprvl.

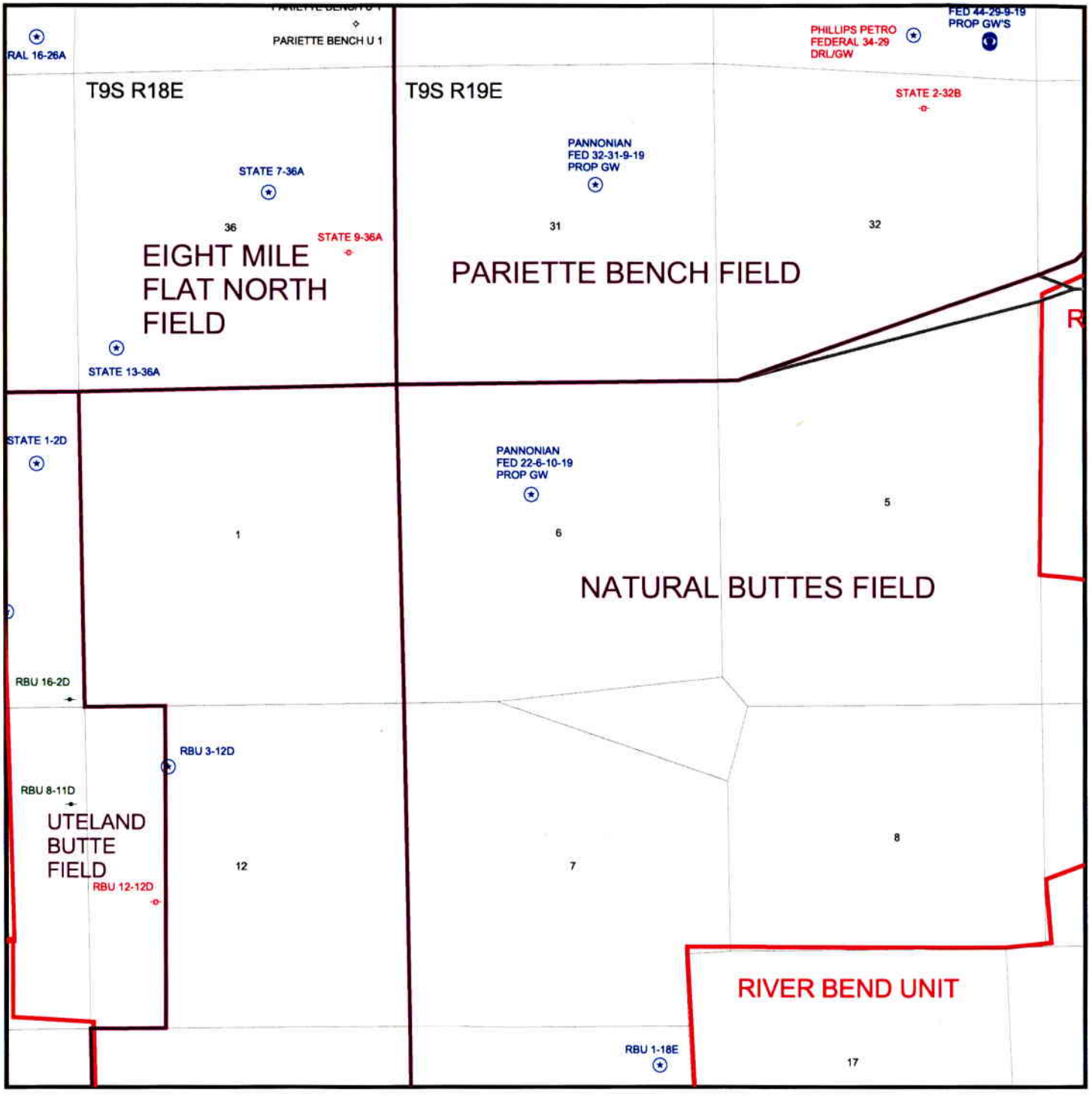
Utah Oil Gas and Mining

OPERATOR: PANNONIAN ENERGY (N1815)

SEC. 6, T10S, R19E

FIELD: NATURAL BUTTES (630)

COUNTY: UINTAH SPACING: R649-3-2/GEN ST




PREPARED BY: LCORDOVA
DATE: 18-JULY-2001

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

August 6, 2001

Pannonian Energy, Inc.
14 Inverness Dr. E
Englewood, CO 80112

Re: Federal 22-6-10-19 Well, 1845' FNL, 2177' FWL, SE NW, Sec. 6, T. 10 South, R. 19 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-34198.

Sincerely,

John R. Baza
Associate Director

er
Enclosures
cc: Uintah County Assessor
Bureau of Land Management, Vernal District Office

**Operator:** Pannonian Energy, Inc.

**Well Name & Number** Federal 22-6-10-19

**API Number:** 43-047-34198

**Lease:** UTU 76490

**Location:** SE NW **Sec.** 6 **T.** 10 South **R.** 19 East

**Conditions of Approval**

1. General

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

   Notify the Division within 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

FORM 3160-5
(December 1989)

**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
**BUREAU OF LAND MANAGEMENT**

FORM APPROVED
Budget Bureau No. 1004-0135
Expires September 30, 1990

## SUNDRY NOTICE AND REPORTS ON WELLS

**Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.**
Use "APPLICATION FOR PERMIT --" for such proposals
***SUBMIT IN TRIPLICATE***

5. Lease Designation and Serial No.
*UTU-76490*

6. If Indian, Allottee or Tribe Name

7. If Unit or C.A., Agreement Designation

1. Type of Well
Oil WELL ☐ Gas Well ☒ Other ☐

8. Well Name and No.
**FEDERAL 22-6-10-19**

2. Name of Operator
***GASCO ENERGY, INC. dba PANNONIAN ENERGY INC.***

3. Address and Telephone No.
*14 INVERNESS DR. E., ENGLEWOOD, CO 80112* (303)483-0044

9. API Well No.
*43-047-34198*

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
*1845' FNL 2177' FWL (SE/NW)*
*SECTION 6, T10S, R19E*

10. Field and Pool or Exploratory Area
**RIVERBEND**

11. County *UINTAH* State *UTAH*

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | |
|---|---|---|
| ☒ NOTICE OF INTENT | ☐ ABANDONMENT | ☐ CHANGE OF PLANS |
| ☐ SUBSEQUENT REPORT | ☐ RECOMPLETION | ☐ NEW CONSTRUCTION |
| ☐ FINAL ABANDONMENT NOTICE | ☐ PLUGGING BACK | ☐ NON-ROUTINE FRACTURING |
| | ☐ CASING REPAIR | ☐ WATER SHUT-OFF |
| | ☐ ALTERING CASING | ☐ CONVERSION TO INJECTION |
| | ☒ OTHER: Requesting extension of permit to drill | |

(Note: Report results of multiple completion on Well Completions or Recompletion Report and Log Form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details and give pertinent dates, including estimated date of starting any proposed work if well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work).

**GASCO ENERGY, INC. dba PANNONIAN ENERGY INC. is requesting that the APD for the subject well be extended for one year**

Approved by the
Utah Division of
Oil, Gas and Mining
Date: 09-12-02
By:

**RECEIVED**
SEP 11 2002
DIVISION OF
OIL, GAS AND MINING

COPY SENT TO OPERATOR
Date: 9-12-02
Initials: CHD

14. I hereby certify that the foregoing is true and correct

SIGNED *Ted Smith* TITLE *Agent* DATE 9/10/2002

(This space for Federal or State office use)

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal Field Office
170 South 500 East
Vernal, Utah 84078-2799
http://www.blm.gov/utah/vernal

Phone: (435) 781-4400
Fax: (435) 781-4410

IN REPLY REFER TO:
3160
UT08300

March 17, 2003

Howard Sharpe
Pannonian Energy Inc.
14 Inverness Dr. E., Suite H236
Englewood, CO 80112

Re: Well No. Federal 22-6-10-19
SENW, Sec. 6, T10S, R19E
Uintah County, Utah
Lease No. UTU-78433

Dear Mr. Sharpe:

The Application for Permit to Drill the above-referenced well is being returned unapproved due to a location move and a resubmission of a new APD.

If you have any questions concerning APD processing, please contact me at (435) 781-4497.

Sincerely,

Leslie Walker

Leslie Walker
Legal Instruments Examiner

cc: UDOGM – Diana Mason

Michael O. Leavitt
Governor
Robert L. Morgan
Executive Director
Lowell P. Braxton
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

October 9, 2003

Ed Trotter
Pannonian Energy, Inc.
P.O. Box 1910
Vernal, Utah 84078

Re: APD Rescinded –Federal 22-6-10-19, Sec. 6, T. 10S, R. 19E –Uintah County, Utah API No. 43-047-34198

Dear Mr. Trotter:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on August 6, 2001. On September 12, 2002 the Division granted a one-year APD extension. On October 6, 2003, you requested that the division rescind the approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective October 6, 2003.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Whitney
Engineering Technician

cc: Well File
Gil Hunt, Technical Services Manager